

**Notice of Allowability**

Application No.

10/015,994

Examiner

ALEXANDER BOAKYE

Applicant(s)

GOETZINGER ET AL.

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 06/04/2007.
2. ☒ The allowed claim(s) is/are 1-3,5-7,8,9,11,12,13-14,16-23; renumbered as 1-20 respectively.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date 04/26/07
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Steven M. Santisi on 07/25/2007.

#### In the Claims:

21. (Currently amended) A computer [program product] readable medium for enqueueing flows in a scheduler for a network processor, comprising: a medium readable by a computer, the computer readable medium having computer program code adapted to: receive a first data frame corresponding to a first flow appointed for transmission from a first output port; enqueue the first flow to a first scheduling queue associated with the first output port; receive a second data frame corresponding to a second flow appointed for transmission from a second output port; and enqueue the second flow to the first scheduling queue, the first scheduling queue also being associated with the second output port; wherein the first scheduling queue is used for

weighted fair queuing based in part on a relative bandwidth of the output port from which the respective flow is appointed for transmission.

22. (Currently amended) A computer [program product] readable medium for transmitting data frames from a network processor, comprising: a medium readable by a computer, the computer readable medium having computer program code adapted to: dequeue a first flow from a first scheduling queue; transmit from a first output port a data frame associated with the dequeued first flow; dequeue a second flow from the first scheduling queue; and transmit from a second output port a data frame associated with the dequeued second flow, the second output port being different from the first output port; wherein the first scheduling queue is used for weighted fair queuing based in part on a relative bandwidth of the output port from which the respective flow is appointed for transmission.

23. (Currently amended) A computer [program product] readable medium for operating a data communication apparatus that includes a scheduler having one or more scheduling queues, the computer [program product] readable medium comprising: a medium readable by a computer, the computer readable medium having computer program code adapted to assign a plurality of output ports to a first of the one or more scheduling queues; wherein the

first scheduling queue is used for weighted fair queuing based in part on a relative bandwidth of the output port from which the respective flow is appointed for transmission.

### REASONS FOR ALLOWANCE

2. The following is an examiner's statement of reasons for allowance: Claims 1-3, 5-9, 11-14, 16-23, are considered allowable since when reading the claims in light of the specification, none of the references of record alone or in combination disclose or suggest the combination of limitations specified in the independent claims. As to claims 1-3, 5-7, the prior art of record does not teach wherein a relative bandwidth of one of the output ports is used to assign one of the data flows to one of the scheduling queues. As to claims 8, 9, 11 and 12, the prior art of record does not teach wherein the first scheduling queue is used for weighted fair queuing based in part on a relative bandwidth of the output port from which the respective flow is appointed for transmission. As to claims 13-14, the prior art of record does not teach wherein the first scheduling queue is used for weighted fair queuing based in part on a relative bandwidth of the output port from which the respective flow is appointed for transmission.

As to claims 16-18, the prior art of record does not teach wherein the scheduling queue is used for weighted fair queuing based in part on a relative bandwidth of the

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output port from which the respective flow is appointed for transmission. As to claim 19, the prior art of record does not teach wherein the first scheduling queue is used for weighted fair queuing based in part on a relative bandwidth of the output port from which the respective flow is appointed for transmission. As to claims 21, 22 and 23, the prior art of record does not teach wherein the first scheduling queue is used for weighted fair queuing based in part on a relative bandwidth of the output port from which the respective flow is appointed for transmission. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### **Conclusion**

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Boakye whose telephone number is (571) 272-3183. The examiner can normally be reached on M-F from 8:30am to 6:00pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham, can be reached on (571) 272-3179. The Fax number is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or PUBLIC PAIR.

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Status information for unpublished applications is available through Private PAIR only.


For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **Electronic Business Center (EBC)** numbers at 866-217-9197 and 703-305-3028.

Alexander Boakye

Patent Examiner

AB

8/14/07

  
CHI PHAM  
SUPERVISORY PATENT EXAMINER 8/16/07